WHAT IS CLAIMED IS:

[c1] A method of manufacturing an optical waveguide device, comprising the steps of:

bonding a first substrate having an optical waveguide region, and a second substrate having a functional region over almost a whole surface, wherein the optical waveguide region includes a core transmitting light and a cladding layer surrounding the core;

opposing at least a part of the functional region to an outside of the optical waveguide region of the first substrate; and

removing an unnecessary part of the first substrate opposite to the functional region.

[c2] A method of manufacturing an optical waveguide device, comprising the steps of:

bonding a first substrate having a plurality of optical waveguide regions and a second substrate having a plurality of functional regions over almost a whole surface, wherein the optical waveguide regions each include a core transmitting light and a cladding layer surrounding the core;

opposing at least a part of each of the functional regions to an outside of each optical waveguide region in the first substrate; and

separating the first and the second substrates into individual optical waveguide devices including the optical waveguide region and the functional region, while an unnecessary part of the first substrate opposite to the functional region is removed.

[c3] A method of manufacturing an optical waveguide device as in claim 1 or 2, wherein an uncured layer of a bonding resin is left between the first substrate and the second substrate in a region where the functional region is formed in bonding the first substrate and the second substrate, and the unnecessary part of the first substrate opposite to the functional region is removed by the uncured layer.

[c4] A method of manufacturing an optical waveguide device as in claim 1 or 2, wherein a layer having low adhesive properties is formed in the unnecessary part of the first substrate opposite to the functional region or the region of the second substrate opposite to the unnecessary part before bonding the first substrate and the second substrate, and the unnecessary part of the first substrate opposite to the functional region is removed by the layer having low adhesive properties.

[c5] A method of manufacturing an optical waveguide device as in claim 1 or 2, wherein a boundary between the region to be removed in the first substrate and the region to be left is cut off by dicing to remove the unnecessary part of the first substrate.

[c6] A method of manufacturing an optical waveguide device, comprising the steps of:

forming a first substrate by providing an optical waveguide region on a light transmitting substrate, wherein the optical waveguide region includes a core transmitting light and a cladding layer surrounding the core;

bonding the first substrate to a second substrate, wherein the second substrate is a supporting substrate ; and

removing the light transmitting substrate.

[c7] A method of manufacturing an optical waveguide device, comprising the steps of:

forming a first substrate by providing an optical waveguide region on a light transmitting substrate, wherein the optical waveguide region includes a core transmitting light and a cladding layer surrounding the core;

bonding the first substrate to a second substrate, wherein the second substrate is a supporting substrate and has a functional region so that at least a part of the functional region of the second substrate is opposed to an outside of the optical waveguide region in the first substrate;

removing the light transmitting substrate ; and

removing an unnecessary part of the first substrate opposite to the functional region of the second substrate.

[c8] A method of manufacturing an optical waveguide device as in claim 6 or 7, wherein the light transmitting substrate is removed by peeling off.

[c9] A method of manufacturing an optical waveguide device as in claim 6 or 7, further comprising a step of forming the optical waveguide region in a manner that a stamper is pressed to a photo-curing resin to transfer a shape of the stamper to the photo-curing resin and the photo-curing resin is emitted with the light to cure the photo-curing resin.

[c10] A method of manufacturing an optical waveguide device as in claim 6 or 7, wherein a groove is formed in the first substrate so as to separate the core after removing the substrate which transmits the light, and a filter is inserted in the groove.

[c11] A method of manufacturing an optical waveguide device as in claim 1, 6, or 7, wherein the first substrate and the second substrate are bonded with a bonding resin having almost the same refractive index as that of the cladding layer.

[c12] An optical waveguide device which is produced by the manufacturing method of an optical waveguide device according to claims 1 to 11.

[c13] An optical waveguide device according to claim 12, wherein a cross section of the core is almost trapezoid-shaped.

[c14] An optical communication apparatus which uses an optical waveguide device as in claim 12 or 13.